

EMAIL--ADVANCED TECHNIQUES

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SUMMARY

The diversity of options in email software, servers, and hardware platforms provides you with lots of ways to save money, time, and hard drive space.

TOPICS

- Offline Access to Webmail
- Three Cloud-based Servers For the Typical Email Service
- Protocols For Sending Email
- Protocols For Receiving Email
- Email Client Software
- Where Is My Email Stored?

TOPICS (continued)

- Selecting An Email Provider
- Disadvantage of Email Address from Your Broadband Internet Service
- Saving Email Messages Locally
- Email Away From Home
- Security Defenses for Webmail
- Security Defenses for An Email Client Program
- Sending SMS Text To A Cell Phone

OFFLINE ACCESS TO WEBMAIL

- If you access email by means of a Web browser, you might still be able to configure your email service to store offline copies of your received email messages that you access even when you do not have an active Internet connection:

OFFLINE ACCESS TO WEBMAIL (continued)

- To activate "Gmail Offline" for the "Chrome" Web browser, see

<https://support.google.com/mail/answer/1306849?hl=en>

OFFLINE ACCESS TO WEBMAIL

(continued)

- To activate offline access so that you can use a Web browser to access your outlook.com email when you have no Internet connection, see
 - ❑ <http://www.intowindows.com/enable-use-outlook-com-offline-access/>
 - ❑ <https://windowsable.com/heres-access-use-outlook-com-offline/>

**THREE CLOUD-
BASED SERVERS
FOR THE TYPICAL
EMAIL SERVICE**

THREE CLOUD-BASED SERVERS...

(continued)

- POP3 server or IMAP server or Exchange/ActiveSync server **for receiving email**
- SMTP server and/or ExchangeActiveSync server **for sending email**
- **Web server** to provide you with access to the email service using a Web browser such as Google Chrome or FireFox

THREE CLOUD-BASED SERVERS...

(continued)

- POP3 =
Post Office Protocol, version 3
- IMAP =
Internet Message Access Protocol
- EAS =
Exchange / ActiveSync =
Exchange ActiveSync
- SMTP =
Simple Mail Transfer Protocol

THREE CLOUD-BASED SERVERS...

(continued)

- **SERVERS FOR RECEIVING EMAIL**

- POP3 =**

- Post Office Protocol, version 3

- IMAP =**

- Internet Message Access Protocol

- EAS =**

- Exchange / ActiveSync =

- Exchange ActiveSync

THREE CLOUD-BASED SERVERS...

(continued)

- SERVERS FOR SENDING EMAIL
 - EAS =
Exchange / ActiveSync =
Exchange ActiveSync
 - SMTP =
Simple Mail Transfer Protocol

THREE CLOUD-BASED SERVERS...

(continued)

- An Exchange / ActiveSync server is the only server that can send and receive email

WHEN YOU USE A
"WEB BROWSER" TO
ACCESS YOUR EMAIL,
IT COMMUNICATES
WITH THE WEB SERVER
THAT YOUR EMAIL
SERVICE PROVIDES:

THEN THE WEB
SERVICE PROVIDER'S
WEB SERVER
COMMUNICATES WITH
THEIR SENDING AND
RECEIVING SERVERS:

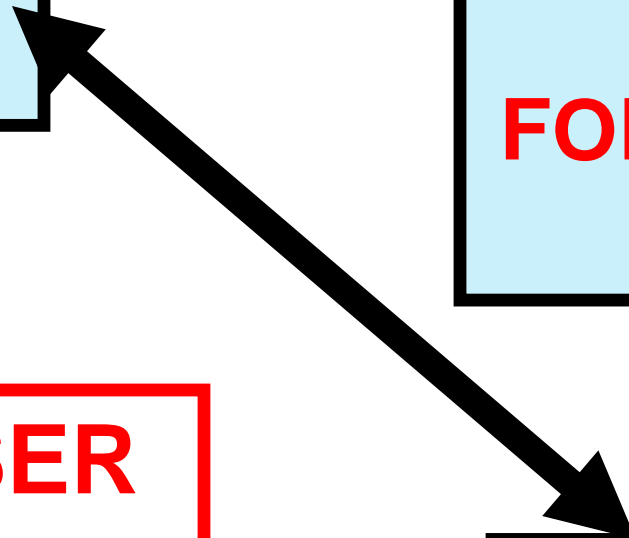
**SMTTP SERVER
OR
EXCHANGE/
ACTIVESYNC
SERVER
FOR SENDING
EMAIL**

**POP3 SERVER
OR
EXCHANGE/
ACTIVESYNC
SERVER
OR IMAP
SERVER
FOR RECEIVING
EMAIL**

**WEB BROWSER
IN YOUR
COMPUTER**

WEB SERVER

Internet Connection



WHEN YOU USE AN "EMAIL
CLIENT PROGRAM" TO
ACCESS YOUR EMAIL, THE
SENDING AND RECEIVING
SERVERS THAT YOUR EMAIL
SERVICE PROVIDES
COMMUNICATE DIRECTLY
WITH YOUR "EMAIL CLIENT
PROGRAM":

**SMTP SERVER
OR
EXCHANGE/
ACTIVESYNC
SERVER
FOR SENDING
EMAIL**

**POP3 SERVER
OR
EXCHANGE/
ACTIVESYNC
SERVER OR
IMAP SERVER
FOR RECEIVING
EMAIL**

Internet Connection

**EMAIL CLIENT
PROGRAM IN
YOUR COMPUTER**

WEB SERVER

**SMTTP SERVER
OR
EXCHANGE/
EXCHANGE
ACTIVESYNC
SERVER
FOR SENDING
EMAIL**

**POP3 SERVER
OR
EXCHANGE/
ACTIVESYNC
OR IMAP
SERVER
FOR RECEIVING
EMAIL**

Internet Connection

**EMAIL CLIENT
PROGRAM IN
YOUR COMPUTER**

"OUTLOOK" VERSUS "OUTLOOK.COM"

- "Outlook.." is a Microsoft "email client program" that is part of "Microsoft Office.." ("Outlook" resides on the hard drive of your Windows or MacOS computer.)
- "Outlook.com" is the current name for Microsoft's email service. (Outlook.com consists of servers up in Microsoft' server farms.)²¹

**WHERE IS MY
EMAIL STORED?**

WHERE IS MY EMAIL STORED?

- If you access your email from a Web browser, your email is stored at the server farm of your email service provider:

Server farms of an email service such as Gmail

Internet Connection

Computer, Tablet, or Cell Phone

Web Browser to access <http://gmail.com>

**Ethernet
or
WiFi
or
Cellular
Adapter**

WHERE IS MY EMAIL STORED?

- If you access your email from an email client software program, your incoming email is downloaded and stored on the local hard drive of your computer. However, you can set your email client software program to either leave and not delete or to delete your incoming email messages from the server.

WHERE IS MY EMAIL STORED?

- For obsolete POP3 email servers, the default settings for most email client software programs is to delete your incoming email messages from the server when you access the email message

Server farms of an email service such as Gmail

Internet Connection

Computer, Tablet, or Cell Phone

Email Client Programs such as Outlook 2013, Outlook Express, or Windows Live Mail

Ethernet or WiFi Adapter

WHERE IS MY EMAIL STORED?

- If you access your email from an email client software program, and you set your email client program to delete after downloading your incoming email messages, you might end up with incoming email messages spread over several devices if you are using a POP3 server.

IF I USE AN EMAIL
CLIENT SOFTWARE
PROGRAM, WHERE ON
MY HARD DRIVE DOES
IT STORE MY EMAIL?

WHERE IS MY EMAIL STORED IF I USE AN EMAIL CLIENT PROGRAM? (continued)

- For the "Outlook.." email client program/app, your email is stored in .OST and .PST files as described in

<http://office.microsoft.com/en-us/outlook-help/locating-the-outlook-data-files-HA103412630.aspx>

WHERE IS MY EMAIL STORED IF I USE AN EMAIL CLIENT PROGRAM? (continued)

- For Windows 8.1 or 10's
"Mail" app:
??????

WHERE IS MY EMAIL STORED IF I USE AN EMAIL CLIENT PROGRAM? (continued)

- For "Mozilla Thunderbird":
<https://support.mozilla.org/en-US/kb/profiles-where-thunderbird-stores-user-data>

PROTOCOLS FOR SENDING EMAIL:

PROTOCOLS FOR SENDING EMAIL

- Simple Mail Transfer Protocol(SMTP)
- Messaging Application Programming Interface (MAPI)
(for sending and receiving email messages with a Microsoft "Exchange Server")
- Exchange/ActiveSync (EAS)
(for sending and receiving email messages with a Microsoft "Exchange Server")

PROTOCOLS FOR RECEIVING EMAIL

- Post Office Protocol 3 (POP3) (obsolete)
- Internet Message Access Protocol (IMAP)
- Messaging Application Programming Interface (MAPI)
(to send and receive email messages with a Microsoft "Exchange Server")
- Exchange/ActiveSync (EAS)
(to send and receive email messages with a Microsoft "Exchange Server")

PROTOCOLS FOR RECEIVING EMAIL:

PROTOCOLS FOR RECEIVING EMAIL (continued)

- Details of the obsolete "Post Office Protocol 3" (POP3):
Storage location for received email messages defaults to the end-user's computer.

PROTOCOLS FOR RECEIVING EMAIL

(continued)

- Details of "Post Office Protocol 3" (POP3):
Desktop client program is configured to either
"Leave email messages on the server after downloading"
or
"Delete email messages on the server after downloading." 38

PROTOCOLS FOR RECEIVING EMAIL (continued)

- Details of "POP3" (continued):
Windows 8's and Windows .1
"Start"/"Metro" screen "Mail"
app does not support the
"POP3" email (receiving)
protocol.

PROTOCOLS FOR RECEIVING EMAIL (continued)

- Details of "IMAP":
Storage location for received email messages defaults to the server farm.
This makes IMAP-based email systems more expensive to operate relative to POP3-based ones.

PROTOCOLS FOR RECEIVING EMAIL (continued)

- Details of "IMAP" (continued):
Received email messages are synchronized between the server farm and ALL computers, tablets, and cell phones that are configured to receive email.

PROTOCOLS FOR RECEIVING EMAIL (continued)

- Details of "IMAP" (continued):
When you delete a received e-mail message from any single device, it is automatically deleted from all other computers, tablets, and cell phones that are configured to receive email from your email provider.

PROTOCOLS FOR RECEIVING EMAIL (continued)

- Details of "IMAP":
IMAP synchronized receive mail and folders at the IMAP server at the server farm AND at all configured end-user devices that have a client email program.

PROTOCOLS FOR RECEIVING EMAIL

(continued)

- Details of "IMAP":
For an IMAP server-based email service provider, you can see what is on the IMAP server by using Webmail access to the email service provider.

"WEBMAIL" TO AVOID DEALING WITH EMAIL PROTOCOLS

- "Webmail" = "Web-based email"
- When you use a Web browser such as "Internet Explorer" or "Firefox" to access your email, you do not have to deal with email protocols because the Web servers of the email provider handle them for you.

"WEBMAIL" TO AVOID DEALING WITH EMAIL PROTOCOLS (continued)

- "Webmail" means you use your local Web browser to communicate with a Web server at a remote server farm
- This Web server acts as an interface to the SMTP email server when you send email
- This Web server acts as an interface to the POP3 or IMAP email server when you send email.

"WEBMAIL" TO AVOID DEALING WITH EMAIL PROTOCOLS (continued)

- When you use "Webmail", your Web browser is communicating with a Web server at a remote server farm:

"WEBMAIL" TO AVOID HAVING TO STORE E-MAIL ON YOUR OWN COMPUTER'S HARD DRIVES

- When you use "Webmail", your e-mail provider's servers are used to store your email message instead of your local hard drives.

"WEBMAIL" TO AVOID HAVING TO STORE E-MAIL ON YOUR OWN COMPUTER'S HARD DRIVES

(continued)

- "Outlook.com" provides unlimited storage
- "Gmail" provides 15 Gigabytes of storage which is shared with other Google services such as "Google Drive"

"WEBMAIL" TO AVOID HAVING TO STORE E-MAIL ON YOUR OWN COMPUTER'S HARD DRIVES (continued)

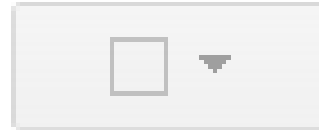
- "Yahoo!Mail" provides 1 Terabyte of storage

"WEBMAIL" TO AVOID HAVING TO STORE E-MAIL ON YOUR OWN COMPUTER'S HARD DRIVES (continued)

- Most other email services have a finite amount of space for you to store your email messages:
https://en.wikipedia.org/wiki/Comparison_of_webmail_providers

Google

Gmail ▾



COMPOSE

Inbox (883)

Starred

Saving a draft allows you to save your work and return to it later.

0.43 GB (2%) of 15 GB used
[Manage](#)

0.43 GB (2%) of 15 GB used

Manage

"WEBMAIL" TO AVOID HAVING TO STORE E-MAIL ON YOUR OWN COMPUTER'S HARD DRIVES (continued)

- <http://windows.microsoft.com/en-us/windows/outlook/email-storage-limits>
- <http://en.wikipedia.org/wiki/Outlook.com>

The screenshot shows a Windows Internet Explorer browser window. The address bar contains the URL `http://windows.micro...` and the page title is "Storage limits in Outlook.com". The menu bar includes "File", "Edit", "View", "Favorites", "Tools", and "Help". The Windows logo and the word "Windows" are visible in the top left of the page content area. The main heading is "Storage limits in Outlook.com". Below the heading, there is a paragraph: "Microsoft Outlook includes email storage that expands to provide you with as much storage space as you need. Your inbox capacity will automatically increase as you need more space." This is followed by another paragraph: "If your inbox grows too fast, you might not be able to send or receive any more messages. Here are some suggestions to help you manage your account so that it doesn't become too large:". Below this is a bulleted list of two items: "• Create an archive. Set up a folder on your computer's hard disk where you can save large attachments, and then delete them from your inbox." and "• Empty your Junk and Deleted message folders. To do this, right-click the folder you want to empty, and then select **Empty folder** from the menu." The bottom right corner of the page shows a zoom level of "100%".

Storage limits in Outlook.com

Microsoft Outlook includes email storage that expands to provide you with as much storage space as you need. Your inbox capacity will automatically increase as you need more space.

If your inbox grows too fast, you might not be able to send or receive any more messages. Here are some suggestions to help you manage your account so that it doesn't become too large:

- Create an archive. Set up a folder on your computer's hard disk where you can save large attachments, and then delete them from your inbox.
- Empty your Junk and Deleted message folders. To do this, right-click the folder you want to empty, and then select **Empty folder** from the menu.

**"WEBMAIL" TO AVOID HAVING TO
STORE E-MAIL ON YOUR OWN
COMPUTER'S HARD DRIVES
(continued)**

- <http://windows.microsoft.com/en-us/windows/outlook/email-storage-limits>

DESKTOP EMAIL CLIENT PROGRAMS IN "WINDOWS.."

- "Microsoft Outlook 2016" supports SMTP, POP3, Exchange/ActiveSync, and IMAP
(Part of "Microsoft Office.."--not free)
- "Mozilla Thunderbird" supports SMTP, POP3, and IMAP
(Free)

DESKTOP EMAIL CLIENT PROGRAMS IN "WINDOWS.." (continued)

- http://en.wikipedia.org/wiki/Comparison_of_email_clients

WHICH EMAIL SERVICE SUPPORTS WHICH PROTOCOLS? (continued)

- "Outlook.com" allows uploads for sending email with SMTP and Exchange/ActiveSync"
- "Outlook.com" allows downloads for receiving email using the IMAP, POP, or Exchange/ ActiveSync protocols.

WHICH EMAIL SERVICE SUPPORTS WHICH PROTOCOLS? (continued)

- Outlook.com's server settings are located at <https://support.office.com/en-us/article/Add-your-Outlook-com-account-to-another-mail-app-73f3b178-0009-41ae-aab1-87b80fa94970>

WHICH EMAIL SERVICE SUPPORTS WHICH PROTOCOLS? (continued)

- "Gmail" allows uploads using SMTP.
- "Gmail" allows downloads using IMAP or POP3.

WHICH EMAIL SERVICE SUPPORTS WHICH PROTOCOLS? (continued)

- Gmail's server settings are located at
- <https://support.google.com/mail/answer/7126229?hl=en>
and
<https://support.google.com/mail/answer/7104828>

WHICH EMAIL SYSTEM SUPPORTS WHICH PROTOCOL? (continued)

- https://en.wikipedia.org/wiki/Comparison_of_webmail_providers

MICROSOFT'S PRODUCT NAMES

- "Outlook.com" is Microsoft's email service
- "Outlook" is Microsoft's desktop software program for receiving and sending email

MICROSOFT'S PRODUCT NAMES

(continued)

- "Outlook.com" is Microsoft's email service which used to be called

Windows Live Hotmail

which used to be called

MSN Hotmail

which used to be called

Hotmail

MICROSOFT'S PRODUCT NAMES

(continued)

- "Outlook 20xx" is Microsoft's not-free email client program which is part of the "Microsoft Office 20xx" software suite:

Outlook 2016

Outlook 2013

Outlook 2010

Outlook 2007

MICROSOFT'S PRODUCT NAMES

(continued)

- Windows 10: "Mail"
- Windows 7 & 8: "Windows Live Mail"
(obsolete)
- Windows 7 & 8:
"Windows Live Mail Desktop" (obsolete)
- Windows Vista: "Windows Mail"
(obsolete)
- Windows XP: "Outlook Express"
(obsolete)

**EMAIL CLIENT PROGRAMS
(THAT YOU INSTALL
INTO YOUR COMPUTER)**

**EMAIL SERVICES
(THAT ARE LOCATED
ON SERVER FARMS
IN THE INTERNET)**

**Outlook 2016,
Outlook 2013,
Outlook 2010,
Outlook 2007,
Outlook 2003,
Thunderbird,**

Outlook.com
email service

"Mail" app in Windows 8.1"
and **"Windows 10"**

Gmail.com
email service

ADDITIONAL PRODUCT DETAILS

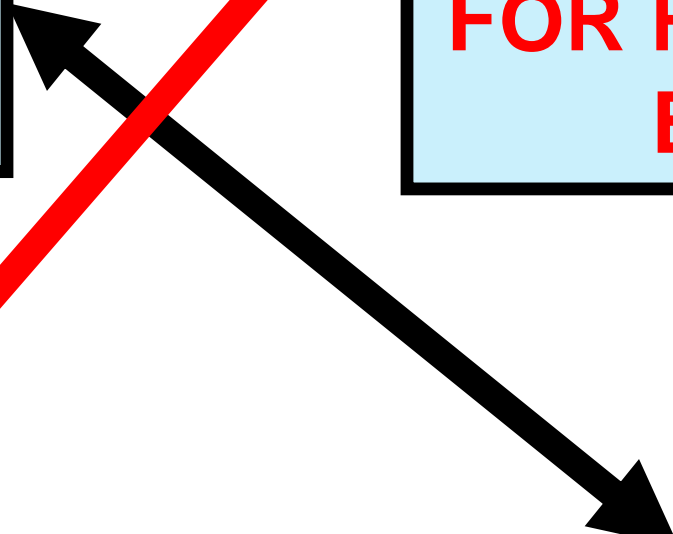
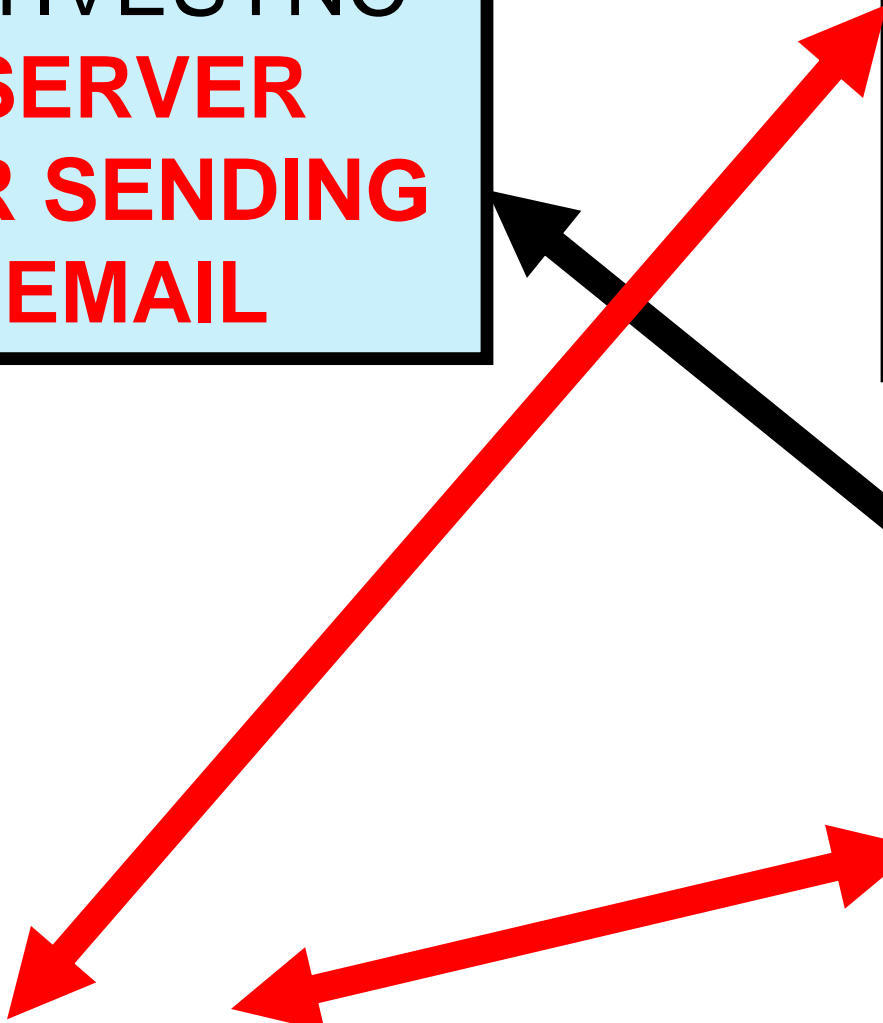
"OUTLOOK.COM" DETAILS (continued)

- "Outlook.com" supports Exchange/ActiveSync, SMTP, IMAP, and POP3.

SMTP
OR
EXCHANGE/
ACTIVESYNC
**SERVER
FOR SENDING
EMAIL**

POP3, IMAP,
OR
EXCHANGE/
ACTIVESYNC
**SERVER
FOR RECEIVING
EMAIL**

OUTLOOK.COM
WEB SERVER



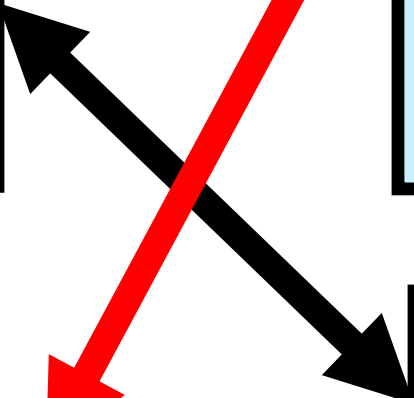
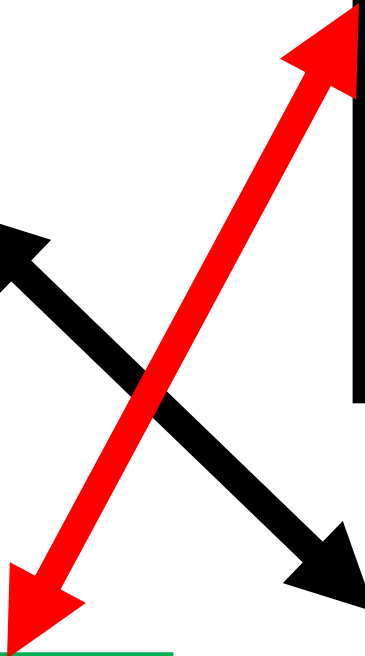
SMTP
OR
EXCHANGE/
ACTIVESYNC
**SERVER
FOR SENDING
EMAIL**

POP3, IMAP,
OR
EXCHANGE/
ACTIVESYNC
**SERVER
FOR RECEIVING
EMAIL**

**OUTLOOK.COM
WEB SERVER**

**EMAIL CLIENT
PROGRAM IN
YOUR COMPUTER**

WEB BROWSER



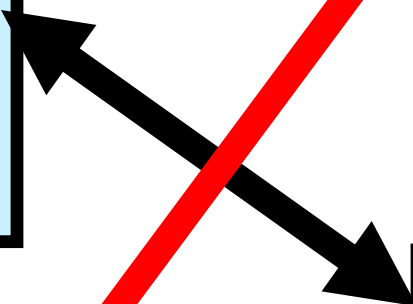
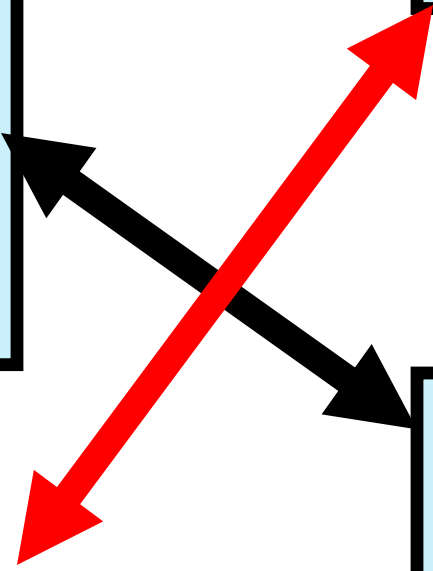
SMTP
OR
EXCHANGE
ACTIVESYNC
**SERVER
FOR SENDING
EMAIL**

POP3 OR
IMAP **SERVER
FOR RECEIVING
EMAIL**

**OUTLOOK.COM
WEB SERVER**

**"WINDOWS LIVE
MAIL" CLIENT
PROGRAM**

WEB BROWSER



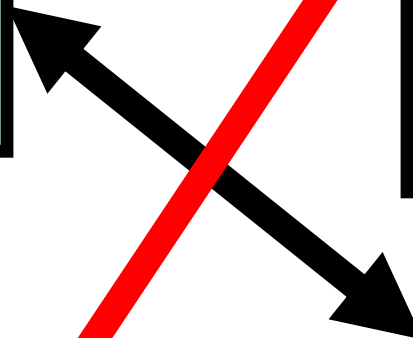
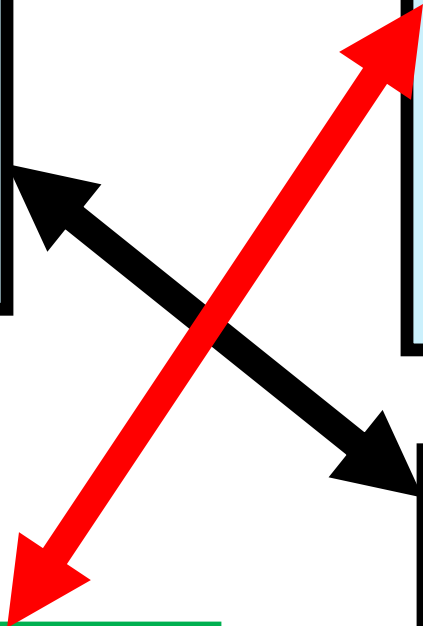
SMTP
OR
EXCHANGE/
ACTIVESYNC
**SERVER
FOR SENDING
EMAIL**

POP3
OR
EXCHANGE/
ACTIVESYNC
**SERVER
FOR RECEIVING
EMAIL**

**OUTLOOK.COM
WEB SERVER**

**"OUTLOOK 2013"
EMAIL CLIENT
PROGRAM**

WEB BROWSER



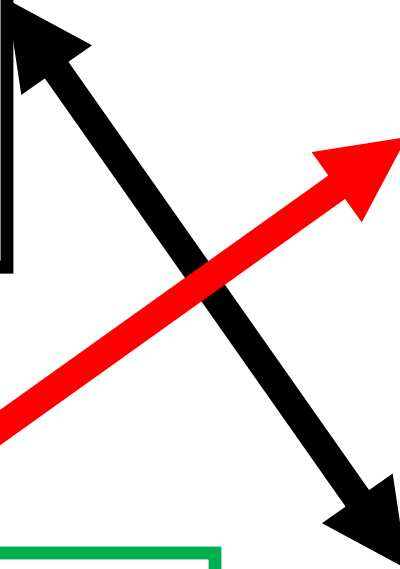
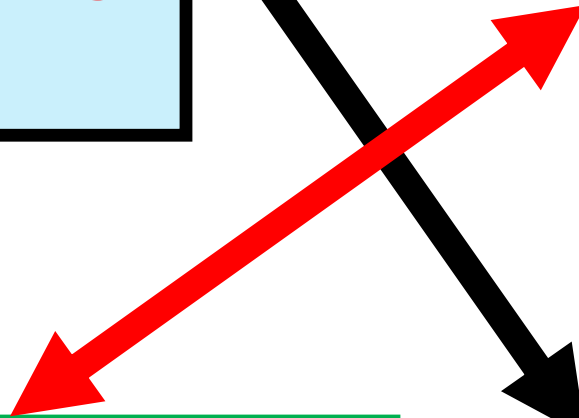
EXCHANGE/
ACTIVESYNC
SERVER
FOR SENDING
EMAIL

EXCHANGE/
ACTIVESYNC
SERVER
FOR RECEIVING
EMAIL

"MAIL" APP IN OF
"WINDOWS..
(= EMAIL CLIENT
PROGRAM)

OUTLOOK.COM
WEB SERVER

WEB BROWSER



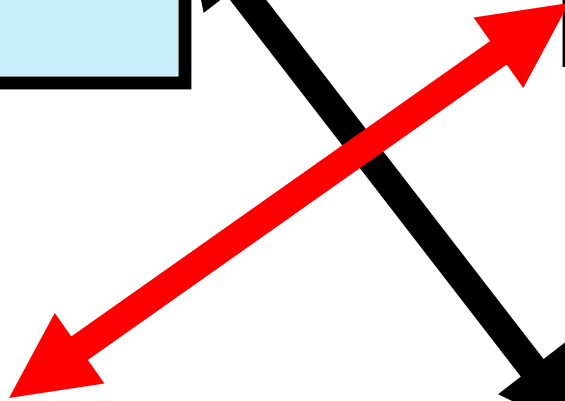
**SMTP SERVER
FOR SENDING
EMAIL**

**POP3 SERVER
FOR RECEIVING
EMAIL**

**"MOZILLA
THUNDERBIRD"
(AN EMAIL CLIENT
PROGRAM)**

**OUTLOOK.COM
WEB SERVER**

**WEB BROWSER
SUCH AS IE**



"GMAIL" PRODUCT DETAILS

- [http://email.about.com/od/accessinggmail/f/Gmail SMTP Settings.htm](http://email.about.com/od/accessinggmail/f/Gmail_SMTP_Settings.htm)
- "Gmail" supports SMTP, POP3, IMAP, and Exchange/ActiveSync.

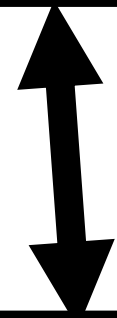
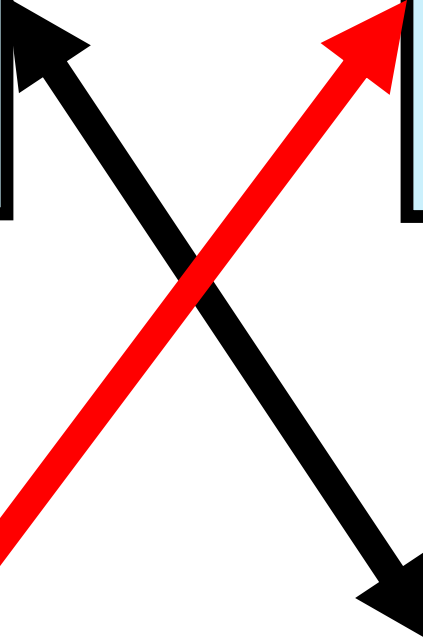
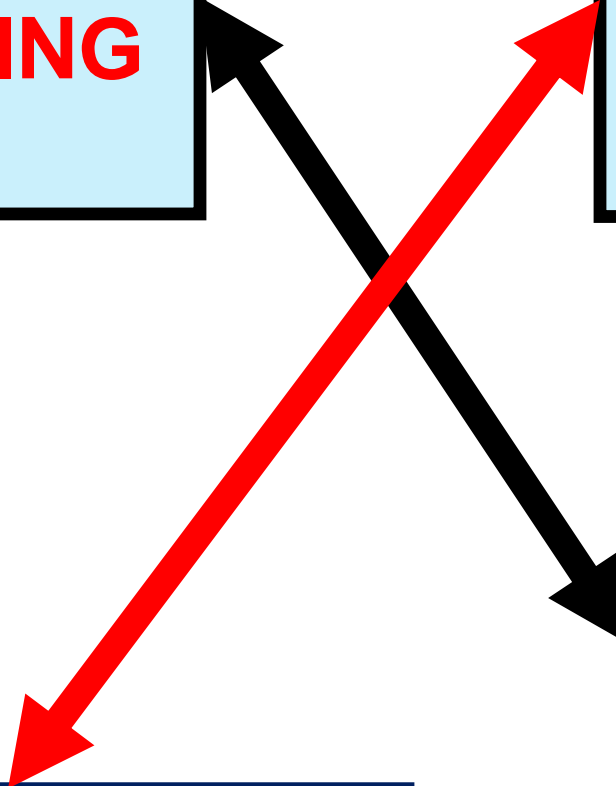
**SMTP SERVER
SERVER
FOR SENDING
EMAIL**

**POP3 OR IMAP
SERVER
FOR RECEIVING
EMAIL**

**GMAIL.COM
WEB SERVER**

**EMAIL CLIENT
PROGRAM IN
YOUR COMPUTER**

**WEB BROWSER
SUCH AS CHROME**



"GMAIL" PRODUCT DETAILS

- "Webmail" access of "Gmail" using a "Web Browser" uses "labels" instead of folders for categorizing and storage of email messages.

"GMAIL" PRODUCT DETAILS

- Attaching more than one "label" to an email message results in more than one "folder" having the same email message.

"YAHOO MAIL" PRODUCT DETAILS (continued)

- <https://help.yahoo.com/kb/mail-for-desktop/pop-access-settings-instructions-yahoo-mail-sln4724.html?impressions=true>
- <https://help.yahoo.com/kb/mail-for-desktop/imap-server-settings-yahoo-mail-sln4075.html?impressions=true>

"YAHOO MAIL" PRODUCT DETAILS

(continued)

- "Yahoo! Mail" supports SMTP, POP3, and IMAP.
- "Yahoo Mail" and "Yahoo! Mail Pro" does not support "Exchange ActiveSync".

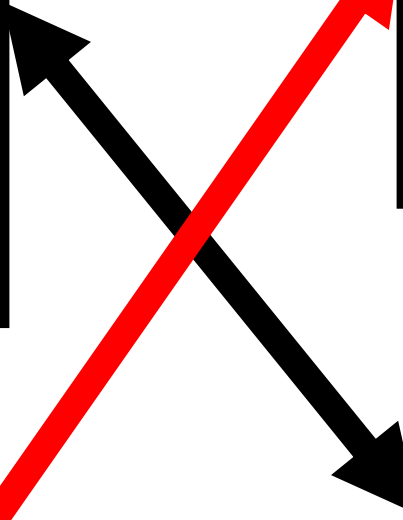
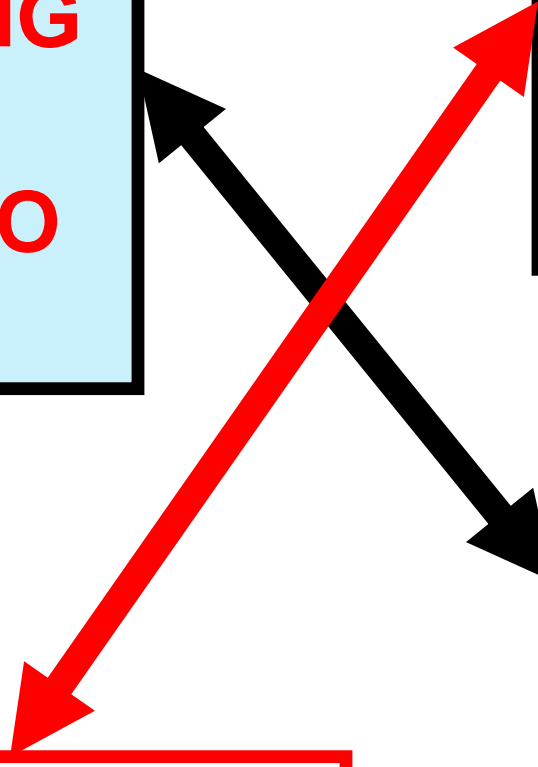
SMTP SERVER
=SERVER
FOR SENDING
EMAIL
FOR "YAHOO
MAIL"

POP3 OR IMAP
SERVER
FOR RECEIVING
EMAIL FOR
"YAHOO MAIL"

YAHOO.COM
WEB SERVER

EMAIL CLIENT
PROGRAM IN
YOUR COMPUTER

WEB BROWSER



SELECTING AN EMAIL SERVICE

- "Litmus Analytics" Usage Share Info.
- Security Breaches of Providers
- Space in Free Email Accounts:
"Yahoo Mail" has 1 Terabyte of space for a free account.

Google accounts now use a shared pool of storage. Every account gets 15 GB of free space, which is shared across your Gmail, Google Drive, and Google+ Photos

SELECTING AN EMAIL SERVICE

(continued)

- Space in Free Email Accounts:
"Yahoo Mail" has 1 Terabyte of space for a free account.
Google accounts now use a shared pool of storage. Every account gets 15 GB of free space, which is shared across your Gmail, Google Drive, and Google+ Photos

SELECTING AN EMAIL SERVICE

- Space in Free Email Accounts
(continued):

"Outlook.com" offers you an unlimited amount of space for an email account.

SELECTING AN EMAIL SERVICE

- Email accounts that are not used go "dormant" and eventually the email provider closes them:

Each email provider sets their own policies for when email accounts become dormant.

Most email providers send your alternate email account a warning when your account is about to go "dormant"

SELECTING AN EMAIL SERVICE (continued)

- Detailed selection charts:
https://en.wikipedia.org/wiki/Comparison_of_webmail_providers

"LITMUS" MARKET SHARE DATA

- The "Litmus Email Analytics" company gathers market share data on the usage of email client programs, Webmail usage, and email providers
- See [http://aztcs.org/meeting_notes/winhardsi
g/email/email-Litmus.pdf](http://aztcs.org/meeting_notes/winhardsi
g/email/email-Litmus.pdf) for an analysis of their latest findings

SECURITY BREACHES

- When an email service gets hacked and someone steals email addresses, user names, and user passwords, you will usually get an urgent email message that tells you to change your passwords to avoid future intrusions into your email account

SECURITY BREACHES (continued)

- For details about security breaches that have occurred for Yahoo Mail, outlook.com email, and AOL email, see http://aztcs.org/meeting_notes/winhardsig/email/email-security-lapses.pdf

DISADVANTAGE OF EMAIL ADDRESS FROM YOUR BROADBAND INTERNET PROVIDER

- If your Internet service gives you an email address that is proprietary to them, they will terminate it when you discontinue their Internet service:

johndoe@roadrunner.com

janedoe@comcast.net

shirleydoe@cox.net

SELECTING AN "EMAIL CLIENT PROGRAM"

- "Email client" can mean a program or app for sending or email or
"Email client" can also mean the hardware device such as the computer, tablet, or cell phone that is used to send or receive email

SELECTING AN "EMAIL CLIENT PROGRAM" (continued)

- or
"Email client" is sometimes used to refer to the Web browser program (such as Microsoft Edge or Google Chrome or Firefox) that is used to access "Webmail"

SELECTING AN "EMAIL CLIENT PROGRAM" (continued)

- For our purposes, "Email client" will always be appended with the word "program" and will use "Email client program" to refer to programs/apps that are used to send and receive email with the exclusion of Web browsers.

SELECTING AN "EMAIL CLIENT PROGRAM" (continued)

- A review of free "email client programs" is available at <http://www.makeuseof.com/tag/5-of-the-best-desktop-email-clients-for-windows-that-dont-cost-a-dime/>

SELECTING AN "EMAIL CLIENT PROGRAM" (continued)

- "Mail" in "Windows 10" is a "Universal Windows Platform" app that is bundled into "Windows 10"
- "Outlook 2016" and "Thunderbird" are "legacy programs" that you have to install into "Windows.."

SELECTING AN "EMAIL CLIENT PROGRAM" (continued)

- To understand the differences between "legacy application programs" and "Universal Windows Platform" apps, see
- http://aztcs.org/meeting_notes/winhardsig/email/UWP-vs-legacy-apps.pdf

SELECTING AN "EMAIL CLIENT PROGRAM" (continued)

- To make a shortcut for a UWP app such as "Mail" in Type shell:appsfolder at a Run box or a command prompt in "Windows 10"
An "Applications" window will be displayed:
You can make shortcuts to both UWP apps and legacy programs in this window

EMAIL AWAY FROM HOME

- Use a "VPN service" to block intrusions into your laptop or tablet
- For Webmail, use the free VPN in the "Opera" Web browser. For details, see http://aztcs.org/meeting_notes/winhardsig/vpnservices/VPNs-Opera.pdf

EMAIL AWAY FROM HOME

(continued)

- For a "client email program", use a free or not-free account at a "VPN service" such as "Hotspot Shield" or "TunnelBear"

EMAIL AWAY FROM HOME (continued)

- Occasionally problems with "email client programs" when you are using "public Wi-Fi" or "hotel Wi-Fi" away from home:
 - 1) Cannot send or receive
or
 - 2) Can receive but cannot send
or
 - 3) Can send but cannot receive

EMAIL AWAY FROM HOME

(continued)

- Send a test message from your main email address in your email client program to your alternate email address in Webmail and check to see if it arrives at your alternate email address
- Use "Webmail" if you are unable to send from an "email client program"

SENDING SMS TEXT AND MMS MESSAGES TO A CELL PHONE

- See
- http://aztcs.org/meeting_notes/winhardsig/email/email-to-SMS.pdf

SECURITY DEFENSES FOR "WEBMAIL"

- When accessing email from a Web browser, you are relying on the Website of your email provider to do the heavy lifting for your security
- Use the free VPN in the Opera Web browser to make Webmail access to email more secure
- Turn on browser monitoring in your local antivirus program(s)

SECURITY DEFENSES FOR AN "EMAIL CLIENT PROGRAM"

- Use a real VPN, free or paid, to enhance the security between your email client program AND the sending and receiving email servers of your email service provider
- Make sure than all real-time monitoring is turned on for your local antivirus program(s).

SECURITY DEFENSES FOR AN "EMAIL CLIENT PROGRAM" (continued)

- For extra strong defenses against malware and viruses, use an isolated virtual machine as described at http://aztcs.org/meeting_notes/winhardsig/secureWeb/secureWeb.pdf

ADDITIONAL PRODUCT DETAILS

MICROSOFT'S PRODUCT NAMES

(continued)

- "Outlook.com" is Microsoft's email service which used to be called

Windows Live Hotmail

which used to be called

MSN Hotmail

which used to be called

Hotmail

MICROSOFT'S PRODUCT NAMES

(continued)

- "Outlook 20xx" is Microsoft's not-free email client program which is part of the "Microsoft Office 20xx" software suite:

Outlook 2016

Outlook 2013

Outlook 2010

Outlook 2007

MICROSOFT'S PRODUCT NAMES

(continued)

- Windows 10: "Mail"
- Windows 7 & 8: "Windows Live Mail"
(obsolete)
- Windows 7 & 8:
"Windows Live Mail Desktop" (obsolete)
- Windows Vista: "Windows Mail"
(obsolete)
- Windows XP: "Outlook Express"
(obsolete)

**EMAIL CLIENT PROGRAMS
(THAT YOU INSTALL
INTO YOUR COMPUTER)**

**EMAIL SERVICES
(THAT ARE LOCATED
ON SERVER FARMS
IN THE INTERNET)**

**Outlook 2016,
Outlook 2013,
Outlook 2010,
Outlook 2007,
Outlook 2003,
Thunderbird,**

Outlook.com
email service

"Mail" app in Windows 8.1"
and **"Windows 10"**

Gmail.com
email service

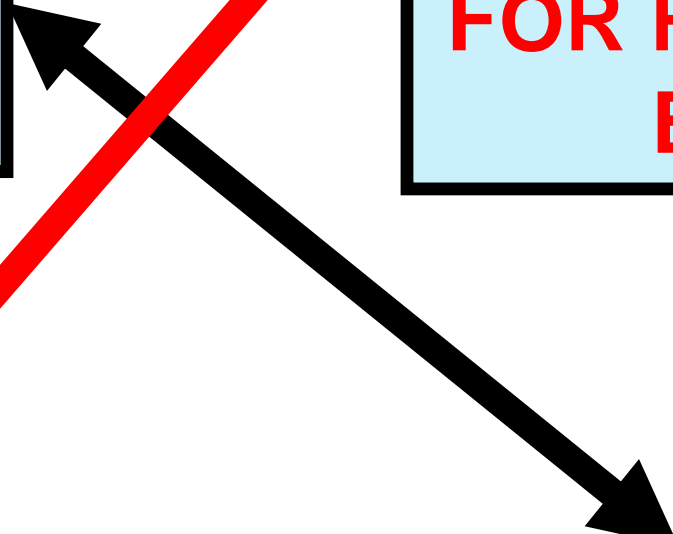
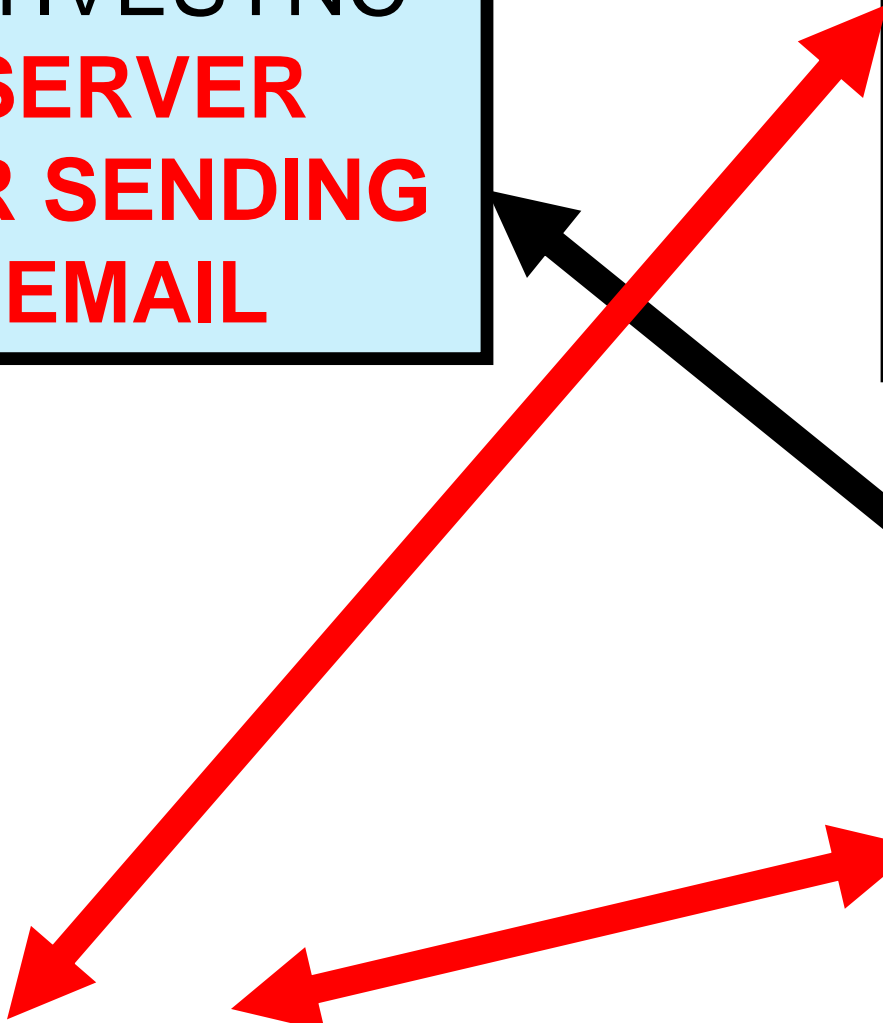
"OUTLOOK.COM" DETAILS (continued)

- The "Outlook.com" email provider supports Exchange/ActiveSync, SMTP, IMAP, and POP3.

SMTP
OR
EXCHANGE/
ACTIVESYNC
**SERVER
FOR SENDING
EMAIL**

POP3, IMAP,
OR
EXCHANGE/
ACTIVESYNC
**SERVER
FOR RECEIVING
EMAIL**

OUTLOOK.COM
WEB SERVER



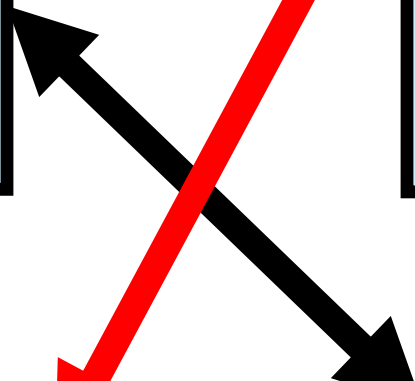
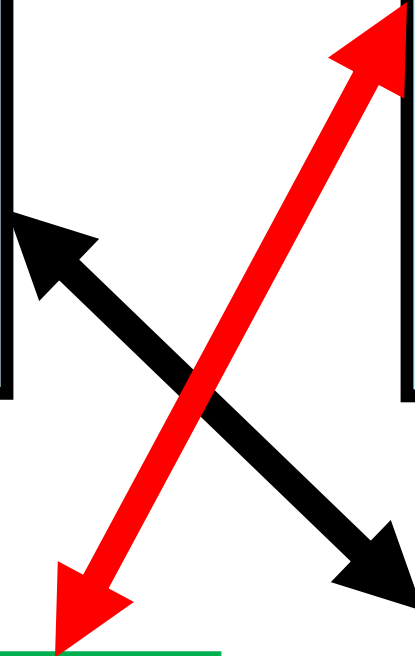
SMTP
OR
EXCHANGE/
ACTIVESYNC
**SERVER
FOR SENDING
EMAIL**

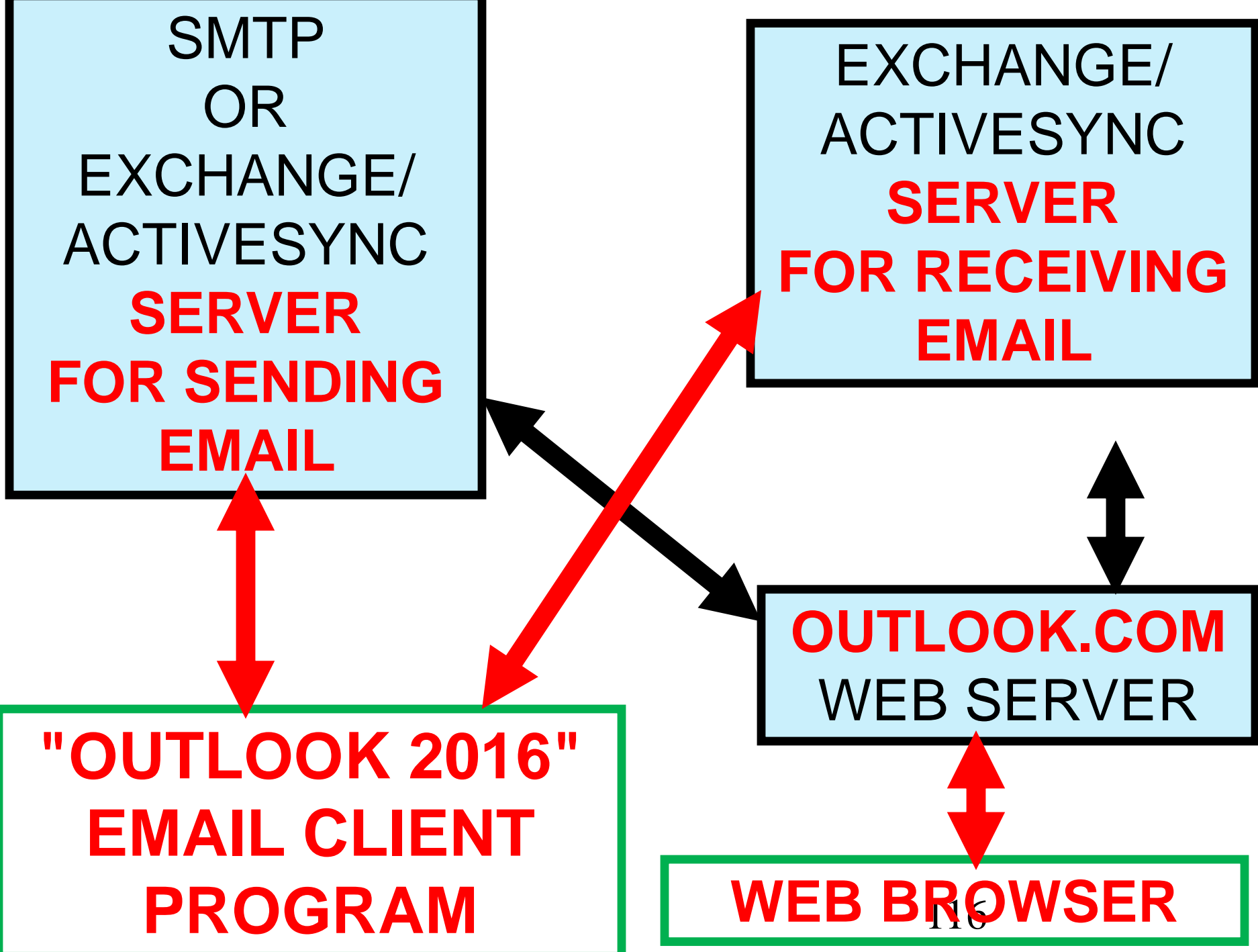
POP3, IMAP,
OR
EXCHANGE/
ACTIVESYNC
**SERVER
FOR RECEIVING
EMAIL**

**OUTLOOK.COM
WEB SERVER**

**EMAIL CLIENT
PROGRAM IN
YOUR COMPUTER**

WEB BROWSER





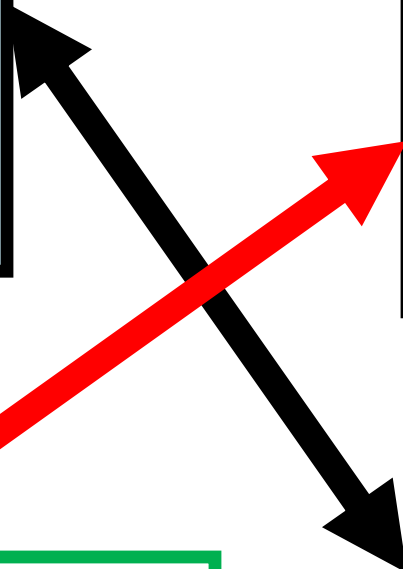
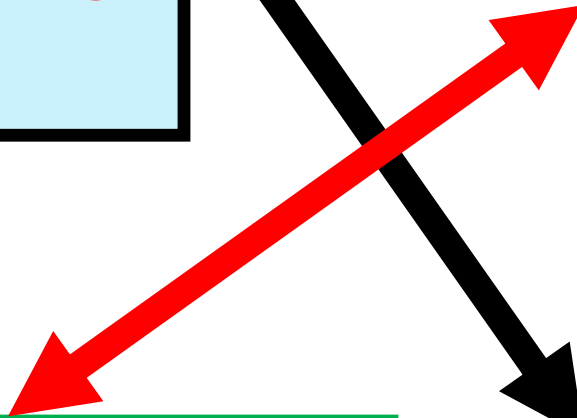
EXCHANGE/
ACTIVESYNC
SERVER
FOR SENDING
EMAIL

EXCHANGE/
ACTIVESYNC
SERVER
FOR RECEIVING
EMAIL

"MAIL" APP IN OF
"WINDOWS 8 OR
10"
(= EMAIL CLIENT
PROGRAM)

OUTLOOK.COM
WEB SERVER

WEB BROWSER



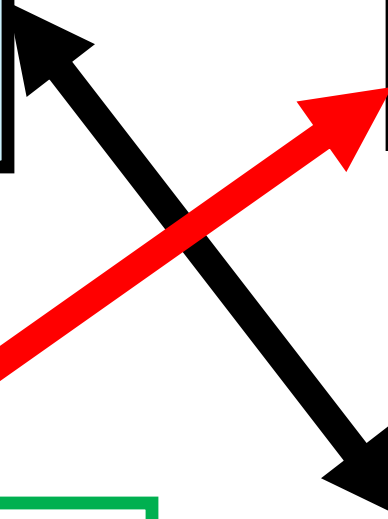
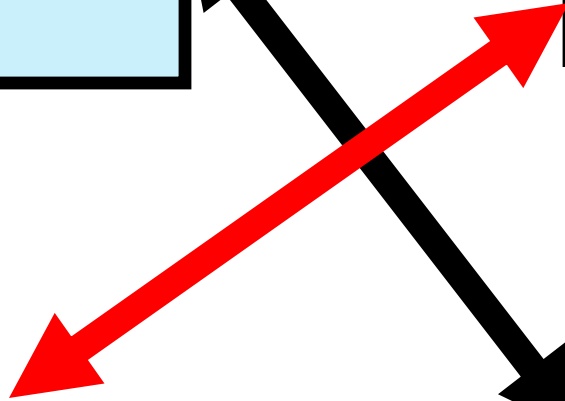
**SMTP SERVER
FOR SENDING
EMAIL**

**IMAP SERVER
FOR RECEIVING
EMAIL**

**"MOZILLA
THUNDERBIRD"
(AN EMAIL
CLIENT
PROGRAM)**

**OUTLOOK.COM
WEB SERVER**

**WEB BROWSER
SUCH AS "CHROME"**



"GMAIL" PRODUCT DETAILS

- [http://email.about.com/od/accessinggmail/f/Gmail SMTP Settings.htm](http://email.about.com/od/accessinggmail/f/Gmail_SMTP_Settings.htm)
- "Gmail" supports SMTP, POP3, and IMAP.

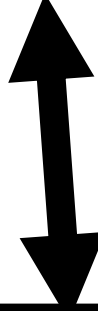
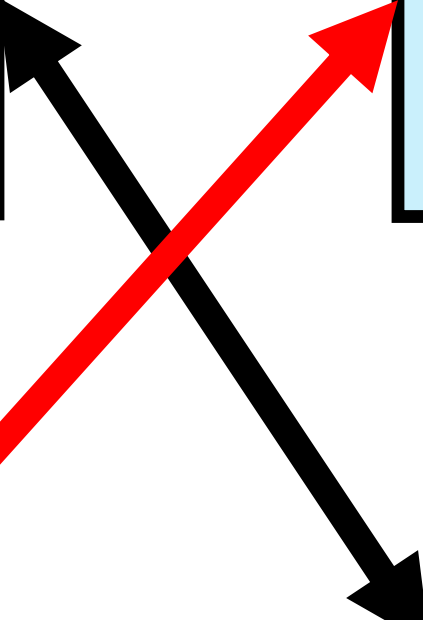
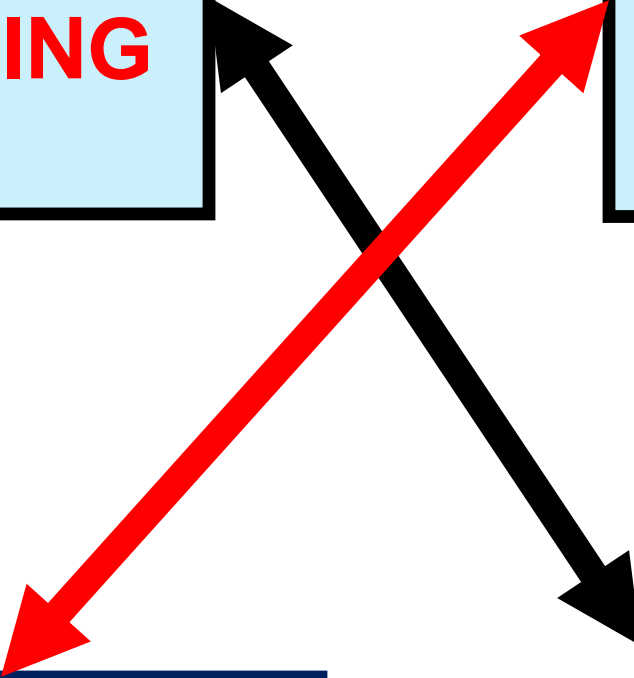
**SMTP SERVER
SERVER
FOR SENDING
EMAIL**

**POP3 OR IMAP
SERVER
FOR RECEIVING
EMAIL**

**EMAIL CLIENT
PROGRAM IN
YOUR
COMPUTER**

**GMAIL.COM
WEB SERVER**

**WEB BROWSER
SUCH AS "CHROME"**



"GMAIL" PRODUCT DETAILS

- "Webmail" access of "Gmail" using a "Web Browser" uses "labels" instead of folders for categorizing and storage of email messages.

"GMAIL" PRODUCT DETAILS

- Attaching more than one "label" to an email message results in more than one "folder" having the same email message.